

# MATHEMATICAL STATISTICS (STAT)

Graduate Degree Program  
College: Computer, Mathematical, and Natural Sciences

## Abstract

The Statistics Program offers the Master of Arts and Doctor of Philosophy degrees for graduate study and research in statistics and probability. Areas of faculty research activity include high dimensional data, statistical decision and estimation theory, biostatistics, stochastic modeling, robust and nonparametric inference, semiparametric inference, categorical data analysis, theory and inference for stochastic processes, stochastic analysis, time series and spatial statistics. Students may concentrate in applied or theoretical statistics by selecting an appropriate sequence of courses and a research area to form an individual plan of study. The Program has been designed with sufficient flexibility to accommodate the student's background and interests. The Program also offers students from other disciplines an opportunity to select a variety of statistics courses to supplement their own study.

### Biostatistics/Bioinformatics Specialization:

Biostatistics/Bioinformatics is an important research field in Statistics with immensely broad applications in public health, medical, and biological research. Bioinformatics is an emerging field with rapid development and has significant overlap with Biostatistics. The Bioinformatics/Biostatistics (STAT-BB) concentration addresses the increasing research opportunities and the educational needs of this burgeoning field. See (<https://stat.umd.edu/grad-new/stat-bb.html>)<https://stat.umd.edu/grad-home/stat-bb.html> (<https://stat.umd.edu/stat-graduate/stat-bb.html>) for details.

The Program is administratively affiliated with the Department of Mathematics, which maintains the records of all students in the Mathematical Statistics Program and handles correspondence with those applying for admission. However, any application for admission must indicate clearly that the student wishes to enter the Statistics (STAT) Program.

Employment prospects for statisticians are very good. All recent M.A. and Ph.D. graduates of Maryland's Statistics Program have found jobs in academia, industry and government agencies.

## Financial Assistance

Graduate assistantships are awarded to Ph. D. students in the Statistics Program through the Mathematics Department. At present, the teaching load is six hours each semester, in addition to the duties of meeting with students and grading papers. There are approximately 20 graduate students in statistics with financial support. These are mostly teaching assistantships, but there are also a few research assistantships and fellowships. From time to time advanced students are placed into research assistantships as data analysts or statistical consultants with other campus units. Applications for financial aid are only processed once a year, for admission for the fall semester.

## Contact

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### Mathematical Statistics Program

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**Website:** <http://stat.umd.edu>

**Courses:** STAT (<https://umd-curr.courseleaf.com/graduate/courses/stat/>)

**Relationships:** Applied Mathematics & Statistics, and Scientific Computation (AMSC) (<https://academiccatalog.umd.edu/graduate/programs/applied-mathematics-statistics-scientific-computation-ams/>)

## ADMISSIONS

### General Requirements

- Statement of Purpose
- Transcript(s)
- TOEFL/IELTS/PTE (international graduate students (<https://gradschool.umd.edu/admissions/english-language-proficiency-requirements/>)): TOEFL/IELTS required even if eligible for waiver.

### Program-Specific Requirements

- Letters of Recommendation (3)
- Graduate Record Examination (GRE) (optional)
- GRE Subject (Math): GRE Math Subject is highly recommended
- CV/Resume
- Writing Sample (optional)
- Supplementary Application (<https://gradschool.umd.edu/sites/default/files/2023-06/umsupplementaryapplicationmathandstat2022.pdf>)

M.A applicants can apply for spring or fall admission. Ph.D. applicants may only apply for the fall term. Spring admission does not offer financial support of any kind. If applicants have any questions, they should contact the department prior to submitting their application.

For more admissions information or to apply to the program, please visit our Graduate School website (<https://gradschool.umd.edu/admissions/application-process/step-step-guide-applying/>).

## Application Deadlines

| Type of Applicant   | Fall Deadline   | Spring Deadline                |
|---|-----------------|--------------------------------|
| <b>Domestic Applicants</b>  |                 |                                |
| US Citizens and Permanent Residents   | January 9, 2026 | December 10, 2025 (M.A. only)  |
| <b>International Applicants</b>   |                 |                                |
| F (student) or J (exchange visitor) visas; A, E, G, H, I and L visas and immigrants | January 9, 2026 | September 10, 2025 (M.A. only) |

**\*M.A applicants can apply for spring or fall admission. Ph.D. applicants may only apply for the fall term. \***

**Other Deadlines:** Please visit the program website at <http://stat.umd.edu>

## REQUIREMENTS

- Mathematical Statistics, Doctor of Philosophy (Ph.D.) (<https://academiccatalog.umd.edu/graduate/programs/mathematical-statistics-stat/mathematical-statistics-phd/>)
- Mathematical Statistics, Master of Arts (M.A.) (<https://academiccatalog.umd.edu/graduate/programs/mathematical-statistics-stat/mathematical-statistics-ma/>)

## FACILITIES AND SPECIAL RESOURCES

The STAT Program cooperates closely with the Mathematics Department and the Applied Mathematics, Statistics and Scientific Computation (AMSC) Program. The Program's faculty are actively involved in research in applied and theoretical areas of statistics and maintain close ties with applied scientists in several federal agencies.

The Program sponsors weekly seminars in Statistics and in Probability. In addition, Research Interaction Teams (RIT's) cover topics of current statistical interest.

Computing is integrated into the applied courses, and the Program also offers a course "Computational Methods in Statistics"

By scheduling many of its applied and Master's level courses in late-afternoon time slots, the Program facilitates and invites part-time graduate study.